



# Consultant Clinical Scientists in NHS Wales

---

Information and guidance on the role, recruitment, training  
and development of Consultant Clinical Scientists in Wales

May 2022

## Context

The Healthcare Science in NHS Wales: Looking Forward Framework<sup>1</sup> refers to the role of the Healthcare Science Network to support, promote, develop and represent the healthcare science workforce in Wales – to amongst other things connect the diverse scientific specialisms, and act as a conduit for workforce advice and policy developments. With this in mind, the Healthcare Science Network produced this document to support the role of Consultant Clinical Scientist in providing system level leadership as well as clinical and scientific expertise. The intended audience includes colleagues responsible for developing and appointing to leadership positions in healthcare science disciplines, service planning, and workforce and organisational development at NHS Wales Health Boards and Trusts.

The document provides information and guidance about the role, recruitment, and education, training and attainment requirements for Consultant Clinical Scientists across NHS Wales, to facilitate the development of healthcare science services where Consultant Clinical Scientists can play a key leadership role in multi-professional service provision and transformation. Recommendations are also made for action by employing organisations in order to support implementation. This contributes towards the ambition in A Healthier Wales: Our Workforce Strategy for Health and Social Care<sup>2</sup> to have a workforce with the capacity, competence and confidence to meet the needs of the people of Wales.

## Recommendations for Action by Employing Organisations

- **Recommendation 1:** Consider new clinical roles for the Consultant Clinical Scientist in the future plans and re-design of the NHS clinical workforce.
- **Recommendation 2:** When developing senior healthcare science leadership posts at head of service level, routinely appoint Consultant Clinical Scientists.
- **Recommendation 3:** Follow advice from NHS Employers and the appropriate professional body (if required) on the appointment of Consultant Clinical Scientist, including to adopt suitable job profiles at minimum Agenda for Change Band 8C.
- **Recommendation 4:** By 31<sup>st</sup> December 2022, individuals seeking their first appointment to a Consultant Clinical Scientist post in Wales must be on the Higher Specialist Scientific Register.
- **Recommendation 5:** Perform succession planning for healthcare science services, promoting the routes to the Higher Specialist Scientific Register, Higher Specialist Scientific Equivalence and Higher Specialist Scientific Training. Identified individuals should be supported in their professional development.
- **Recommendation 6:** Attend to the development of individuals holding Consultant Clinical Scientist posts to take on further responsibilities, to facilitate potential progression into roles at executive level.

---

<sup>1</sup> Welsh Government (2018) *Healthcare Science in NHS Wales: Looking Forward*. Available at: <https://gov.wales/sites/default/files/publications/2019-03/healthcare-science-in-nhs-wales.pdf>

<sup>2</sup> Health Education and Improvement Wales & Social Care Wales (2020) *A Healthier Wales: Our Workforce Strategy for Health and Social Care*. Available at: <https://heiw.nhs.wales/files/workforce-strategy/>

## 1. Background

Consultant Clinical Scientists have been employed in the NHS for over 40 years to provide valuable scientific clinical advice and care alongside medical consultants and other health care professionals from across the healthcare system. Consultant Clinical Scientist status confirms the same level of professional competency as that achieved by consultant medical staff, justified by the extent of training and specialist expertise<sup>3</sup>.

Within their specialism, Consultant Clinical Scientists are responsible for the integrity of the clinical scientific and technical knowledge base within their service; they undertake in-depth, highly complex roles, requiring high-level clinical judgement, advanced scientific expertise, strategic leadership, and they deal with uncertainty in direct patient care<sup>4</sup>. Consultant Clinical Scientists deliver a key clinical managerial and strategic leadership role in the modern multi-professional NHS workforce environment. A recent review of Consultant Clinical Scientist NHS appointments in England and Wales identified more than 600 in the role across many clinical specialties<sup>5</sup>.

Within NHS Wales healthcare science workforce, there are different forms of professional registration; through the Health and Care Professions Council (HCPC), Academy for Healthcare Science (AHCS) and others e.g., Register of Clinical Technologists (RCT). However, for individuals registered with the HCPC as Clinical Scientists, there is the assurance provided by both a protected title and a clear career pathway that incorporates nationally recognised training and development through to consultant level. For those in their first appointment to a Consultant Clinical Scientist post, competency at consultant grade will be assured through their registration on a national Higher Specialist Scientific Register (HSSR) following the rigorous training on the Higher Specialist Scientific Training (HSST) programme<sup>6</sup> or proven equivalent development through the Higher Specialist Scientific (HSSE) process<sup>7</sup>.

In addition, routes now exist for individuals on registers other than the HCPC register to attain registration as Clinical Scientists through an equivalence process, providing a development route for the wider healthcare science workforce through to the HSSR and appointment to consultant posts.

A sufficient body of Consultant Clinical Scientists also provides a pool of individuals for recruitment into executive positions, such as Directors of Therapies and Health Science.

---

<sup>3</sup> Academy of Medical Royal Colleges (2012) *Statement from the Academy of Medical Royal Colleges on Higher Specialist Scientific Training*. Available at: [https://www.aomrc.org.uk/wp-content/uploads/2016/05/AOMRC\\_Statement\\_2012-03-22-Higher\\_Specialist\\_Scientific\\_Training.pdf](https://www.aomrc.org.uk/wp-content/uploads/2016/05/AOMRC_Statement_2012-03-22-Higher_Specialist_Scientific_Training.pdf)

<sup>4</sup> NHS Employers (2016) *Generic Role Descriptor: Guidance for Employers to Generate Specific Job Descriptions for Consultant Clinical Scientists*. Available at: <https://heiw.nhs.wales/files/generic-role-descriptor-consultant-clinical-scientists-nhs-employers/>

<sup>5</sup> National School of Healthcare Science (2019) *Scaling the Heights: an overview of Higher Specialist Scientist Training (HSST) in Healthcare Science*. Available at: <https://nshcs.hee.nhs.uk/wp-content/uploads/2019/08/Scaling-the-Heights-final.pdf>

<sup>6</sup> National School of Healthcare Science (2022) *Higher Specialist Scientist Training programme*. Available at: <https://nshcs.hee.nhs.uk/programmes/hsst/>

<sup>7</sup> AHCS (2022) *Equivalence Guidance*. Available at: <https://www.ahcs.ac.uk/equivalence/equivalence-guidance/>

## 2. The Role of Consultant Clinical Scientists

Consultant Clinical Scientists currently contribute to NHS workforce and clinical service delivery by:

- **Providing advanced clinical scientific expertise and interpretation of clinical data** to other NHS professionals, and directly to patients. Consultant Clinical Scientists work as an integral member of the clinical team, contributing directly to the development and delivery of patient management pathways.
- **Assuming clinical scientific responsibilities** at a level of accountability equivalent to that of consultant medical staff; providing high value clinical scientific services that require a significant and breadth of clinical, technical and scientific knowledge and expertise.
- **Being accountable for clinical scientific advice** and in some cases, this includes delivering treatment directly to patients to improve patient management and outcomes.
- **Providing local, regional and national strategic leadership** of clinical scientific services, e.g., genomics, and leadership more broadly across scientific, diagnostic and clinical areas/specialisms.
- **Responsibility for individual patient care including that delivered by others** within the team that they lead.
- **Delivery of high-level clinical advice and expert care** in the management of complex clinical cases.
- **Providing advice to organisations to assure the safe and effective use of health technologies**, including compliance with statutory obligations.
- **Promoting and delivering evidence-based practise** through evaluation of existing knowledge but, where sufficient evidence does not exist, understanding the significance of this in deciding best management on an individual patient basis.
- **Acting as an influential patient advocate.**
- **Leading the translation of cutting-edge scientific research and education**, bringing strategic direction and innovation into clinical practice.
- **Teaching, training and professional leadership** at local/regional/national/international level within the NHS and in partnership with academia, e.g., through honorary and/or jointly funded academic positions.
- **Supporting workforce modernisation** through the development of balanced multi-professional working for clinical scientific service development.
- **Contributing to strategic service redesign, leading the introduction of new technologies, diagnostics and innovations** (either technological or non-technological) in a safe and measured manner through research, innovation and quality service improvement.
- **Promoting and leading on clinical governance, quality and safety**, advocating and implementing accreditation and professional regulation.
- **Providing essential links between the NHS, academia and industry**, facilitating and leading on opportunities for NHS service transformation.

As a result of workforce re-design, the opportunities and need for Consultant Clinical Scientists are increasing. Through their extensive training and experience in service transformation, Consultant

Clinical Scientists are well-placed to drive forward change in their professional specialties to address workforce pressures and accommodate new service delivery models. Therefore, NHS employers have the opportunity to appoint expert Consultant Clinical Scientists to take a proactive role in multi-professional, multi-disciplinary clinical teams, enabling the optimal development and use of scientific advances and technology to further benefit patient care and services<sup>8</sup>. Consultant titles for Clinical Scientists are agreed in conjunction with scientific professional bodies and Medical Royal Colleges such as the Royal College of Pathologists<sup>9</sup>, within the context of the Career Framework for healthcare science<sup>10</sup>. Further guidance is available to support employers develop a quality assured appointment process for those eligible to apply for Consultant Clinical Scientist posts<sup>11</sup>.

Inclusion of quality improvement, innovation and research within the role of Consultant Clinical Scientists and HSSR requirements, brings opportunities to enhance modernisation of services by optimising use of consultant practice within managerial roles. Value would be added across both existing and emerging services, with service leads skilled to embed and test new models of practice and demonstrate outputs and outcomes, using data and evidence to improve and transform. A recommendation of this paper is that appointment to all healthcare science posts that include responsibility for delivering autonomous professional leadership of a healthcare science service should be to Consultant Clinical Scientist.

Furthermore, the breadth of clinical and managerial responsibilities associated with this role and skillset indicates that these appointments will be at a minimum Agenda for Change Band 8C, commensurate with NHS Employers generic job profiles for healthcare scientists<sup>12</sup>. Note, the appointment of a Consultant Clinical Scientist may be indicated by a range of factors other than clinical and professional leadership roles (see section 5 below).

**Recommendation 1:** Consider new clinical roles for the Consultant Clinical Scientist in the future plans and re-design of the NHS clinical workforce.

**Recommendation 2:** When developing senior healthcare science leadership posts at head of service level, routinely appoint Consultant Clinical Scientists.

**Recommendation 3:** Follow advice from NHS Employers and the appropriate professional body (if required) on the appointment of Consultant Clinical Scientist, including to adopt suitable job profiles at minimum Agenda for Change Band 8C.

<sup>8</sup> Royal College of Pathologists (2022) *Become a Consultant Clinical Scientist*. Available at: <https://www.rcpath.org/discover-pathology/careers-in-pathology/become-a-consultant-clinical-scientist.html>

<sup>9</sup> Royal College of Pathologists (2022) *Employing Consultant Clinical Scientists*. Available at: <https://www.rcpath.org/profession/employing-pathologists/employing-consultant-clinical-scientists.html>

<sup>10</sup> AHCS (2022) *Career Framework for Healthcare Scientists*. Available at: <https://www.ahcs.ac.uk/about/the-healthcare-science-industry/career-framework-for-healthcare-scientists/>

<sup>11</sup> NHS Employers (2016) *Appointment Process: Guidance for Employing Organisations on the Appointment of Consultant Clinical Scientists in England*. Available at: <https://heiw.nhs.wales/files/appointment-process-consultant-clinical-scientists-nhs-employers/>

<sup>12</sup> NHS Employers (2021) *National profiles for Healthcare Science*. Available at: <https://www.nhsemployers.org/sites/default/files/2021-06/healthcare-science-profiles.pdf>

### 3. The Route to Registration of Consultant Clinical Scientists

HCPC registered Clinical Scientists who successfully complete the HSST programme or demonstrate attainment of the relevant professional standards and capabilities through the HSSE (equivalence) process can enter onto the Academy for Healthcare Science (AHCS) Higher Specialist Scientist Register (HSSR)<sup>13</sup> and are considered as suitable to apply for Consultant Clinical Scientist posts in Wales. These are detailed further in sections 3.1 to 3.3 below.

Whilst there is a strategic need to promote routes to HSSR registration, it is recognised that there is currently a cadre of experienced individuals in existing Consultant Clinical Scientists posts, having passed selection and demonstrated competency. Individuals in existing Consultant Clinical Scientist posts would not be required or expected to be on the HSSR, although they may elect to do so. Whereas all Consultant Clinical Scientists taking up their first post as a consultant after 31<sup>st</sup> December 2022 must be registered on the HSSR.

Clearly it is important that there is a sufficient pool of suitable candidates to apply for new posts and vacancies as they arise across Wales. It is therefore imperative that through succession planning, individuals are encouraged to develop and secure registration on the HSSR through the two routes to achieve this. Responsible individuals at organisational level should secure and promote access to national funding to support both routes.

**Recommendation 4:** By 31<sup>st</sup> December 2022, individuals seeking their first appointment to a Consultant Clinical Scientist post in Wales must be on the Higher Specialist Scientific Register.

**Recommendation 5:** Perform succession planning for healthcare science services, promoting the routes to the Higher Specialist Scientific Register, Higher Specialist Scientific Equivalence and Higher Specialist Scientific Training. Identified individuals should be supported in their professional development.

#### 3.1 Higher Specialist Scientific Training (HSST) Scheme

HSST is a fully funded five-year training programme that has been developed as a formal route to educate and train Consultant Clinical Scientists, run by the National School of Healthcare Science<sup>14</sup>. NHS Wales Trusts and Health Boards wishing to make an application to request these training positions should do so via the Integrated Medium-Term Planning process (IMTP). Funded by Welsh Government, Health Education and Improvement Wales (HEIW) provides training grants for each HSST training position and provides funding for university fees to support the programme.

---

<sup>13</sup> Professional Standards Authority (2015) *Accredited Registers Programme*. Available at: [https://www.professionalstandards.org.uk/docs/default-source/accredited-registers/notifications-of-change/notification-of-change-panel-decision-ahcs-2015.pdf?sfvrsn=58297f20\\_2](https://www.professionalstandards.org.uk/docs/default-source/accredited-registers/notifications-of-change/notification-of-change-panel-decision-ahcs-2015.pdf?sfvrsn=58297f20_2)

<sup>14</sup> Department of Health (2010) *Modernising Scientific Careers: The UK Way Forward*. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/138326/dh\\_113990.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/138326/dh_113990.pdf)

The programme consists of work-based training, with an integrated professional doctorate (DClinSci). For some specialties, successful completion of the Fellowship of the Royal College of Pathologists examination (FRCPath) is a programme requirement that confers eligibility to apply for the HSSR. The work-based competencies are aligned to the AHCS HSSR Standards of Proficiency<sup>15</sup>, with the professional doctorate additionally covering academic knowledge, enquiry and professional skills across three core areas: leadership and management; specialist scientific knowledge; and research, development and innovation<sup>16</sup>.

Individuals participating in HSST are allocated an allowance of protected time across the five years, with funding for backfill of this time provided to the trainee's employer via the training grant. Those who already hold relevant PhDs awarded in the last ten years can achieve HSST within three years via an accelerated route. There are a number of HSST training positions available to all specialisms within Wales on request via the IMTP process.

HSST is an ambitious and rewarding scheme, with a wide range of benefits. The leadership and management training is comprehensive and provides individuals with a firm foundation to effectively lead services and deliver change. There is a strong focus on continuous quality improvement, health economics and the application of innovation which are key in delivering world class, value-based healthcare. Doctoral research projects are generally translationally focussed, and it is anticipated that the outcomes of these will directly impact local clinical practice and patient care. In addition, trainees form strong relationships and networks with HSST colleagues across the UK, both within their own specialism and across the breadth of healthcare sciences. Good practice is shared, challenges are discussed, and collaborative partnerships are formed.

HSST is a comprehensive scheme requiring substantial commitment from both the participant and the supporting organisation. To successfully complete the training programme, there is an expectation/requirement for individuals to work over and above the funded protected time. In terms of the organisation, acquiring suitable backfill for protected time is a key challenge and in addition, for some disciplines either no HSST curricular exists, or local departments may feel unable to meet the training requirements.

### **3.2 Higher Specialist Scientist Equivalence (HSSE) Scheme**

The structured HSST scheme will yield suitable successors; however, there is a wide group of talented scientists who would make excellent future leaders, but for whom the HSST programme is either not available or not appropriate. HSSE enables experienced healthcare scientists to demonstrate parity between their pre-existing knowledge, skills and experience, and the outcomes of the HSST

---

<sup>15</sup> Academy for Healthcare Science (2015) *Standards of Proficiency for Higher Specialist Scientists*. Available at: <https://www.ahcs.ac.uk/download/268/guidance-equivalence/5265/ahcs-hss-standards-of-proficiency-2.pdf>

<sup>16</sup> National School of Healthcare Science (2022) *The academic part of the HSST*. Available at: <https://nshcs.hee.nhs.uk/programmes/hsst/trainees/the-doctoral-award/>

programme such that they are eligible for HSSR registration. The process of equivalence is available at all career stages of the Modernising Scientific Careers Framework<sup>14</sup> and is governed by the AHCS<sup>7</sup>.

As with HSST, applicants for HSSE are assessed against the AHCS HSSR Standards of Proficiency and the outcomes of the HSST curriculum. To be eligible, HSSE applicants must be a HCPC registered Clinical Scientist and demonstrate a wealth of professional experience, practised at an appropriate level in a healthcare and/or another relevant scientific setting, usually for at least five years. Examples of such levels would include working at director level, leading in education, achievement in research and development, acting as head of department or in a lead scientist role. To demonstrate alignment with the HSST programme outcomes, candidates are required to submit a range of supporting evidence for assessment. Further details can be accessed in the '*Higher Specialist Scientist Equivalence: Guidance for Applicants*'<sup>17</sup>.

The purpose of HSSE is not only to enable HSSR registration of experienced Clinical Scientists, but also to provide an alternative route to registration for talented staff where HSST is not an available or suitable option. By performing a gap analysis of the prospective registrant's knowledge, skills, and experience against the requirements of HSSE, strategic training plans can be developed to support high calibre individuals towards consultant registration. HSSE is therefore an important tool in the healthcare science workforce development strategy and Welsh Government and HEIW support this through a budget that funds equivalence routes to registration for all levels of the healthcare science workforce.

### **3.3 Routes for Other Healthcare Scientists**

It is noted that other healthcare scientist roles, such as the proposed Consultant Biomedical Scientist within certain life science disciplines, are currently being reviewed by professional bodies and the National School of Healthcare Science in conjunction with the requirements of the Modernising Scientific Careers national programme. This is with a view of seeking a consistent approach and requirements within the life science healthcare workforce to achieve consultant level positions. Flexible pathways (e.g., equivalence, HSST access) have been developed to enable healthcare scientists to demonstrate the necessary Modernising Scientific Careers criteria and gain access to the breadth and level of education and training required to achieve registration on the HSSR and fulfil the role of a consultant healthcare scientist. Once a national position has been agreed for the life science disciplines currently under review, further guidance will follow.

Additional work is underway within Wales to address consultant level positions for other professions. Currently, non-medical consultant guidance for Nursing and Allied Health Professions also applies to the healthcare science Radiographer workforce in Wales<sup>18</sup>.

---

<sup>17</sup> AHCS (2018) *Higher Specialist Scientist Equivalence: Guidance for Applicants*. Available at: <https://www.ahcs.ac.uk/equivalence/equivalence-guidance/>

<sup>18</sup> Welsh Government (2014) *Revised guidance for the development of Consultant Practitioners in Wales*. Available at: <http://www.wales.nhs.uk/sites3/documents/890/Guidance%20Notes%20for%20the%20development%20of%20Consultant%20Practitioners%20April%202014.pdf>



Further guidance will also follow on the earlier stages of the Modernising Scientific Careers pathway in NHS Wales, which includes Practitioner Training Programmes (PTP), Scientist Training Programmes (STP), education for supporting roles in healthcare science (Healthcare Science Assistants/Associates relating to Career Framework levels 2-4), along with PTP and STP equivalence processes for existing NHS staff. These provide both multiple career entry routes and opportunities for the healthcare science workforce to access the Clinical Scientist career pathway to consultant level and beyond.

#### 4. Profile of Consultant Clinical Scientists in NHS Wales

As of 2022, there are over 30 Consultant Clinical Scientist posts within Wales, each playing a key role in service transformation and improved patient care. An important challenge to maximising the impact made by Consultant Clinical Scientists is to ensure that there are substantive consultant posts across the entire healthcare science spectrum, and that these are fully supported by accessible training mechanisms within all specialisms.

In the coming years, a significant number of new consultants will be required due to the creation of new posts, or due to staff retirement. A key challenge therefore is in the identification and training of future leaders to fill this void. The structured HSST scheme will provide many individuals over time, but employers and professions will also need to champion the equivalence route for existing talented and experienced scientists.

The following specialisms currently have access to HSST opportunities (2022)<sup>19</sup>:

##### **Clinical Bioinformatics**

- Clinical Bioinformatics (Genomics)
- Clinical Bioinformatics (Health Informatics)
- Clinical Bioinformatics (Physical Sciences)

**Life Sciences** (completion of the HSST will also include the Fellowship Examination from the Royal College of Pathologists)

- Analytical Toxicology
- Clinical and Laboratory Transfusion
- Clinical Biochemistry
- Clinical Immunology
- Genetics
- Haematology (Haemato-Oncology)
- Haematology (Haemostasis and Thrombosis)
- Histocompatibility and Immunogenetics
- Microbiology
- Molecular Pathology of Acquired Disease
- Molecular Pathology of Infection
- Reproductive Science
- Virology

---

<sup>19</sup> National School of Healthcare Science (2022) *What are the HSST specialties?* Available at: <https://nshcs.hee.nhs.uk/programmes/hsst/applicants/hsst-specialisms/>

### Physical Sciences

- Clinical Biomedical Engineering
- Imaging Physics
- Radiotherapy Physics
- Reconstructive Science

### Physiological Sciences

- Audiological Science
- Cardiac Science
- Gastrointestinal Physiology
- Neurophysiological Science
- Ophthalmic and Vision Sciences
- Respiratory and Sleep Sciences
- Urodynamic Science
- Vascular Science

Work is being undertaken UK-wide by the National School of Healthcare Science, supported by the Healthcare Science Network and HEIW, to build on the existing Scientist Training Programmes and establish HSST opportunities in clinical scientific specialisms that do not currently have HSST progression routes. Examples of these specialisms include histopathology and epidemiology.

## 5. Development and Organisational Contribution of Consultant Clinical Scientists

While entry to the Consultant Clinical Scientist grade is typically at Band 8C, more senior Consultant Clinical Scientists have additional responsibilities with posts banded at 8D or 9 that may involve performing higher level clinical leadership (for scientific and medical staff) and contributing beyond their own service towards the corporate and wider clinical and strategic agenda within organisations. In addition to increased management responsibilities, individuals can make a leading and strategic contribution beyond their own clinical service towards clinical effectiveness, value-based services, research and development, system/equipment safety, regional and national clinical networks. Consultant Clinical Scientists can also provide expert advice to NHS Wales and Welsh Government on clinical, professional, strategic and policy issues in support of the national agenda.

Health Boards benefit from developing Consultant Clinical Scientists through more senior positions, including Clinical Director and Assistant Director of Therapies and Health Science, to executive level as Director of Therapies and Health Science – see Appendix 1. The specific development needs of Consultant Clinical Scientists should be reviewed annually and supported following their appointment, based upon agreed job plans.

**Recommendation 6:** Attend to the development of individuals holding Consultant Clinical Scientist posts to take on further responsibilities, to facilitate potential progression into roles at executive level.

## **6. Recruitment of Consultant Clinical Scientists**

It is important that there is consistency in understanding of the role and capability of Consultant Clinical Scientists, as well as providing assurance to employers that they are recruiting and developing expertise in a way that reflects the vision for the future healthcare system.

NHS Employers have provided detailed guidance on the appointment process for Consultant Clinical Scientists<sup>10</sup> which should be followed by NHS Wales organisations when recruiting to these posts. The guidance describes the necessary planning and preparation of job descriptions and plans, advertising, selection of candidates, assessment, and interview processes.

In addition, there are set recommendations and guidance provided by professional bodies such as the Royal College of Pathologists on the appointment of Consultant Clinical Scientists<sup>9</sup>. Attention is drawn to the advice on banding of Consultant Clinical Scientist posts and routine use of healthcare science generic profiles (see recommendation 3), and the inclusion of essential criteria of either HSSR registration or previous appointment to consultant post in job descriptions (see recommendation 4).

## **7. Conclusion**

The strategic vision for healthcare science will demand a versatile and empowered workforce capable of leading change and working in new and innovative ways. As experts in systems thinking and natural innovators, Consultant Clinical Scientists have a significant role to play in introducing bold new models of seamless care, harnessing innovation using evidence to drive redesign and increasing value for patients and the wider system. They play important strategic roles in managing highly complex clinical cases, and in managing key scientific and clinical services within NHS Wales.

Developing the leadership capability and capacity of our consultant clinical workforce is key to enabling the transformation of scientific and diagnostic services. Consultant Clinical Scientists are crucial to assist in the development of more prudent, clinically effective patient care pathways and models of care. To achieve this, NHS Wales need the best and brightest minds to create the science driven step changes required in the system to address future challenges.

As expert practitioners, Consultant Clinical Scientists contribute to the education and training of other healthcare professionals, adding to the knowledge base and understanding of the NHS workforce facilitating improved care and better outcomes for patients.

Through the development of and support for Consultant Clinical Scientist roles, there is an exciting opportunity to build on the current Clinical Scientist workforce and NHS workforce redesign agenda, to maximise the skills of these expert healthcare professionals for the delivery of high quality, patient centred clinical services. In turn, this would serve to address some of the workforce pressures being experienced by the NHS today.

The opportunities provided by Consultant Clinical Scientist roles should be considered at the earliest stages of integrated workforce planning, as these can be a key service modernisation enabler in any organisational development workforce design programme. In addition to the information and recommendations in this document, further UK guidance is available to support recruitment to these posts and should be followed by NHS Wales employers. Welsh Government funded training opportunities exist for many scientific specialisms for HSST, with others in development, and an equivalence process is also funded for NHS staff who are able to demonstrate professional competencies and standards to achieve consultant status.

All the required steps are in place for aspiring consultants to seek HSSR registration at pace. It remains only for the recommended actions to be taken by Health Boards and Trusts in order that these leading roles be utilised effectively across NHS Wales.

**Appendix 1 – NHS Employers: Range of employment roles undertaken by Consultant Clinical Scientists (CCS)**



**EXAMPLES OF THE RANGE OF EMPLOYMENT ROLES UNDERTAKEN BY CONSULTANT CLINICAL SCIENTISTS**



**Examples of employing organisations across the health system**  
 NHS trusts, independent providers, CCGs, community services, Public Health England, National Blood & Transplant Service, universities.

**Further CCS career development**  
 Many CCS undertake several additional roles alongside their primary organisational role.